Patent claims

1. Diagnosis method for monitoring the available resources in a production process with supply links, which comprise in particular production plants and/or service providers,

   - in which components are supplied by a number of supply links (2, 2', 4) to a system provider (3), which puts these components together to form a system,

   - in which any number of supply links (2, 2', 4) are situated in relation to one another in an interconnected supply chain (5), so that they are in turn supplied by other supply links (2, 2', 4),

   - each supply link (2, 2', 4) having an input buffer (10, 10'), an output buffer (11, 11') and a process stage (12, 12'),

   the diagnosis method comprising the steps

   - that firstly an identification number is determined for each supply stage (2, 2', 4) on the basis of the design of its buffers (10, 10', 11, 11') and its process stage (12, 12'),

   - that information concerning the predicted demands of the system provider (3) in their time sequence is made available by the system provider (3) continually over time to each supply link (2, 2', 4),

   - that information concerning the momentary stock of its buffers (10, 10', 11, 11') is supplied continually over time by each supply link (2, 2', 4),

   - that the identification numbers of the supply links (2, 2', 4) are used to determine continually over time whether their momentary buffer stocks (10, 10', 11, 11') satisfy the predicted demands of the system provider (3),

   - and that the results of this assessment are made available continually over time to the supply links (2, 2', 4).

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2. Diagnosis method according to Claim 1, characterized in that the identification number of a supply link (2, 2', 4) is determined by this supply link (2, 2', 4) itself.

3. Diagnosis method according to Claim 1, characterized in that the results of this assessment are made available to the supply links (2, 2', 4) in the form of a traffic-light function.

4. Diagnosis method according to Claim 1, characterized in that a range (T), which is a measure of the time period over which the supply link (2, 2', 4) is capable of balancing out demand fluctuations of the system provider (3), is chosen as the identification number for the determination of the supply capability of the supply link (2, 2', 4).

5. Diagnosis method according to Claim 1, characterized in that a lead time δ, which corresponds to the time interval between the input buffer (10, 10') or output buffer (11, 11') of the supply link (2, 2') and the input buffer (10'') of the system provider (3), is determined for each supply link (2, 2').

6. Diagnosis method according to Claim 1, characterized in that an interpreter list, which contains the reference of the intermediates produced by the particular supply link (2, 2') to the end product of the system provider (3), is created for each supply link (2, 2').

7. Diagnosis system for monitoring the available resources in a production process,
   - a network (1) of supply links (2, 2', 4) which supply to a system provider (3) being involved in the production process,

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- each supply link (2, 2', 4) having an input buffer (10, 10'), an output buffer (11, 11') and a process stage (12, 12'),
- and any number of the supply links (2, 2', 4) being situated in relation to one another in an interconnected supply chain (5),
- the diagnosis system (13)
  - replicating the interconnection of the supply links (2, 2', 4) with respect to one another,
  - and also containing data concerning predicted demands of the system provider (3) and also identification numbers and data concerning momentary buffer stocks (10, 10', 11, 11') of all the supply links (2, 2', 4),
- and it being possible for the data contained in the diagnosis system (13) to be called up by the system provider (3) and all the supply links (2, 2', 4).

8. Diagnosis system according to Claim 7, characterized in that the diagnosis system (13) is accessible to the supply links (2, 2', 4) via the Internet.